



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/719,406

11/21/2003

Keiyu Kin

13425.45US01

3338

23552

7590

09/07/2005

MERCHANT & GOULD PC

P.O. BOX 2903

MINNEAPOLIS, MN 55402-0903

EXAMINER

ARTHUR JEANGLAUDE, GERTRUDE

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*ja*

**Office Action Summary**

Application No.

10/719,406

Applicant(s)

KIN, KEIYU

Examiner

Gertrude Arthur-Jeanglaude

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 11/21/03.
- 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 1-4 are presented for examination.

#### ***Specification***

The disclosure is objected to because of the following informalities: The specification at pages 6-7 "Brief description of the drawings" should have the letter for Figs 4, 6, 8, 9, 10 in order to be consistent with the drawings. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kin et al. (JP # 05-107257).

As to claim 1, Kin et al. disclose a hydroplaning detection apparatus for a vehicle comprising: wheel speed sensors (1L and 1R) for detecting vibrations from a road surface through tires, the wheel speed sensors being provided at front and rear wheel sides, respectively; an input section (14; see paragraph 0014)) through which the wheel speed sensors input their detection values; and a processing unit (CPU 11; see page 4) for processing the detection values to determine hydroplaning, wherein the processing unit operates: to feature extract a change pattern of the detection values for the

Art Unit: 3661

respective front and rear wheel sides by excluding inherent tire influences on the detection values (See page 1, claim 4); to execute pattern matching (using comparison means 22 see claim 3 page 1) between the front and rear wheel sides on the basis of the feature extracted change patterns of the detection values; to obtain a time difference from a coincidence of the change patterns (See page 1, claim 1); to calculate a first vehicle speed based on the time difference and a reference distance that is previously stored in the hydroplaning detection apparatus (see page 4); to calculate a second vehicle speed based on an average value of wheel speeds detected by the wheel speed sensor that is provided at the rear wheel side (See page 4); and to determine that hydroplaning has occurred if a deviation between the first vehicle speed and the second vehicle speed is greater than a certain value (See page 1, claim 4).

As to claim 2, Kin et al. disclose a hydroplaning detection wherein the processing unit (CPU 11) determines that hydroplaning has occurred if the deviation exceeds the certain value for a certain period of time (See paragraph 0015).

As to claims 3-4, Kin et al. disclose a hydroplaning detection apparatus wherein the reference distance is a wheel base of the vehicle (See paragraph 0016).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Umeno et al. (U.S. Patent No. 6,264,292)

Art Unit: 3661

Nishikawa et al. (U.S. Patent No. 5,596,141).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gertrude Arthur-Jeanglaude whose telephone number is (571) 272-6954. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GAJ

*GAJ*

September 2, 2005

*Gertrude A. Jeanglaude*  
GERTRUDE A. JEANGLAUDE  
PRIMARY EXAMINER